

SPOT THE SAFETY VIOLATION: 9 Tips for Safely Clearing Snow from Roofs



Why do you think the roof of this public gym in the Czech Republic collapsed?

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Snow and ice can endanger workers in several ways. For instance, they may cause workers to slip and fall. And if they're allowed to build up, snow and ice can compromise a roof's structural integrity and cause it to collapse.

[This picture](#) shows the aftermath of the collapse of the roof of a gym in the Czech Republic—during a youth floorball game. One possible cause of the collapse or at least a contributing factor: the weight of the reported 16 inches of snow that was sitting on the roof.

Fortunately, everyone was able to get out before the roof came down and only two people suffered minor injuries. But other similar roof collapses have had fatal consequences.

Example: The snow-covered roof of a food distribution warehouse in Québec collapsed and killed three workers. A report on the incident concluded that a decorative awning acted as a wall and allowed snow to build up on the roof. The snow and ice accumulations exceeded the roof's capacities, causing its failure [*Gourmet du village Morin Heights*, The Canadian Press, Nov. 20, 2008].

9 TIPS FOR SAFELY CLEARING SNOW FROM ROOFS

To avoid roof collapses, remove snow and ice from the roofs of your facilities. But clearing snow and ice from a roof poses its own safety risks. For example, the snow and ice can make footing slippery and cause a worker to fall.

A [hazard alert from OSHA](#) recommends that you [plan ahead](#) for safe snow removal from building roofs by answering these questions:

- Can snow be removed without workers going onto the roof?
- Are there any hazards on the roof that might be hidden by the snow and need to be marked so that workers can see them (such as [skylights](#), roof drains, vents, etc.)?
- How should the snow be removed, based on the building's layout, to prevent unbalanced loading?
- What are the maximum load limits of the roof and how do they compare with the estimated total weight of snow, snow-removal equipment and workers on the roof?
- What tools, equipment, protective devices, clothing and footwear will workers need?
- [What type of fall protection](#) will be used to protect workers on roofs and other elevated surfaces?
- What training will workers need to work safely?
- How will mechanized snow removal equipment be safely elevated to the roof?
- How will you protect people on the ground from snow and ice falling off the roof during removal operations?

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And to ensure that your workers are safe when clearing snow and ice from roofs, give them these tips to follow:

1. Clear as much of the snow as possible from the ground.
2. Never spray water on the roof to try to clear the snow—it'll just freeze and create additional problems. Instead, use a de-icing chemical.
3. Never work on a roof in the winter—even a flat roof—unless fall prevention (such as covers, screens, railings or guardrails) is in place or you're using adequate [fall protection equipment](#) (such as a full-body harness, lanyard, connectors and appropriate anchorage points) and [slip-resistant footwear](#).
4. Be wary of [any skylights or other openings](#) in the roof that may be hidden by the snow. And never sit on, lean against or step on a skylight lens or any covering placed over such a hole.
5. Clear snow in a cross direction to the roof trusses to reduce the stress on all the trusses at the same time, rather than reducing stress from only one truss.
6. Remove drifted snow first. On multi-level roofs, this snow will likely be on the lower roofs.
7. Remove snow evenly from both sides of the roof to avoid concentrating a load in one area, which could stress the roof and cause that area to collapse.
8. Completely remove the snow from the roof as you clear it.
9. Use caution when removing snow from one section to avoid travelling over and compacting snow on adjacent sections.

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